EXECUTIVE SUMMARY

Mission

39.5 million
households are eligible for Weatherization.

The U.S. Department of Energy's (DOE) Weatherization Assistance Program (Weatherization or the Program) reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety.

Weatherization has operated for over 40 years and is the nation's largest single "whole house" energy efficiency program. Its primary purpose, established by law, is:

"…to increase the energy efficiency of dwellings owned or occupied by low-income persons, reduce their total residential energy expenditures, and improve their health and safety, especially low-income persons who are particularly vulnerable such as the elderly, the disabled, and children."

The Program provides energy efficiency services to an average of **35,000 homes annually** with congressional appropriated funds while reducing annual energy costs by an average of **$283 or more** per household[1]. Through the American Recovery and Reinvestment Act of 2009 (the Recovery Act) (Public Law 111-5), the Program weatherized over **1,000,000 homes** during three years of the Act[2].

These low-income households are often on fixed incomes or rely on income assistance programs and are most vulnerable to volatile changes in the economy or energy markets. High energy users or households with a high energy burden also receive priority for weatherization services.

Operations

DOE works in partnership with state and local-level agencies to implement the Program. The Department awards formula grants to all 50 states, the District of Columbia, five U.S. territories and Native American tribes, which then usually contract with local agencies. Over **700 local organizations** deliver Weatherization services to eligible residents in every county in the nation[3].

Since the inception of the Program in 1976, more than **7 million** households have received Weatherization services[4].

- Weatherization returns **$4.50** in energy and non-energy related benefits for every $1.00 invested in the Program[5].

[1] ORNL/TM-2015/13, National Weatherization Assistance Program Impact Evaluation: Energy Impacts for Single Family Homes
[2] U.S. Department of Energy. This total includes both Recovery Act and formula grant units.
[3] Ibid.
[4] Ibid.
[5] Ibid.

- For every $1 invested by DOE, the Program leverages **$3.04** in other federal and non-federal resources[6]. Agencies use leveraged resources to weatherize more low-income homes and to deliver more services while in the home.

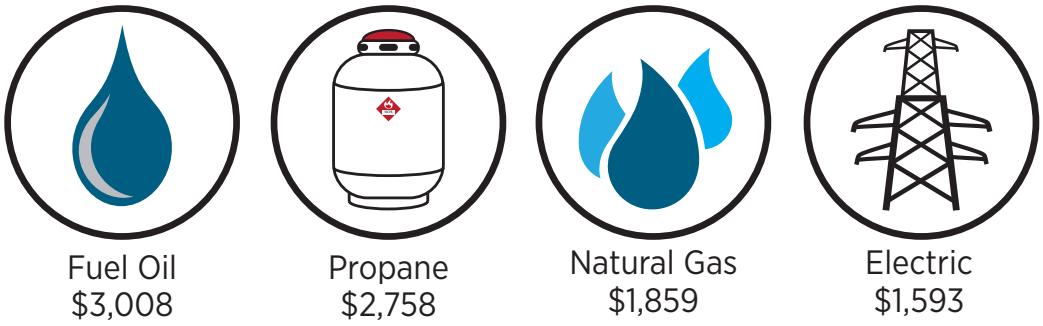
Eligible Households

As of 2014, more than **39.5 million** households are eligible for Weatherization services, though not all of these homes are appropriate candidates for weatherization[7]. Some income eligible clients may live in dwellings that require repairs, rehabilitation, or services that are beyond the scope of the Weatherization Assistance Program.

Any household at or below 200% of the poverty guidelines is considered eligible. A Weatherization Grantee may elect to use the U.S. Department of Health and Human Services Low-Income Home Energy Assistance Program (HHS LIHEAP) criteria of 60% of state-median income. A technical memorandum published by Oak Ridge National Laboratory found eligible U.S. households spent **$72.3 billion** on energy costs in 2014[8].

- Low-income households typically spend **16.3%** of their total annual income on energy, compared to **3.5%** for other households[9].
- Low-income families must often cut back on other necessities, such as groceries or medicine, to pay their energy bills. Figure 1 specifies the average expenditures by fuel type in 2014.

Figure 1: Average Annual Energy Costs by Fuel Type | 2014



[6] NASCSP Funding Survey 2017.
[7] ORNL/TM-2014/133, Weatherization Assistance Program Technical Memorandum Background Data and Statistics on Low-Income Energy Use and Burdens, March 2014.
[8] Ibid.
[9] Ibid.

Weatherization in Action

The national Weatherization network offers a streamlined delivery system to provide high quality, energy efficiency services and improvements in single family homes, manufactured or mobile homes, and multifamily buildings.

Professionally trained weatherization crews utilize the most advanced technologies to address energy use and improvements. Crews use computerized energy audits and advanced diagnostic equipment, such as blower doors, pressure pans and infrared cameras, to determine the most cost-effective measures appropriate for each home.

Once a customized work order is created, trained crews install the identified energy efficiency and health and safety measures. Figure 2 illustrates the most typical weatherization measures installed in a home. When the work is completed, a certified **Quality Control Inspector (QCI)** ensures all work was installed correctly to the Standard Work Specifications (SWS) and the home is safe for the occupants.

Figure 2: Typical Weatherization Measures Installed

MECHANICAL MEASURES

- Clean, tune, repair, or replace heating and/or cooling systems.
- Install duct and heating pipe insulation.
- Install programmable thermostats and other HVAC controls.
- Repair/replace water heaters.
- Install water heater tank insulation.
- Insulate water heating pipes.
- Install solar water heating systems.
- Install waste heat recovery devices.

HEALTH & SAFETY MEASURES

- Complete combustion appliance safety testing.
- Repair/replace vent systems to ensure combustion gas draft safely outside.
- Install mechanical ventilation to ensure adequate indoor air quality.
- Assess fire hazards. Install smoke and carbon monoxide alarms when needed.
- Evaluate mold/moisture hazards.
- Perform incidental safety repairs when needed.

BUILDING SHELL MEASURES

- Install wall, floor, ceiling, attic, and/or foundation insulation.
- Complete Blower Door Testing.
- Perform air sealing.
- Repair/replace primary windows/doors.
- Install storm windows/doors.
- Install window film/solar screens/window louvers and awnings.
- Repair minor roof and wall leaks prior to attic or wall insulation.

ELECTRIC BASELOAD MEASURES

- Install motor controls.
- Install efficient light sources.
- Replace refrigerators and freezers with energy efficient models.

Household and Community Impacts

Weatherization helps to alleviate the heavy energy burden on low-income households and helps them become self-sufficient. Weatherization measures:

- Result in an average energy savings of **$283 per year**[10] per weatherized household. Savings can be higher if electric baseload measures (e.g. - lighting, refrigerators) are upgraded.
- Are "locked" into the home and continue to save money and energy every year.
- Improve health and safety by eliminating energy-related hazards.

The Weatherization Assistance Program helps low-income households while contributing to revitalizing communities by spurring economic growth and reducing environmental impacts.

Weatherization returns $2.78 in non-energy benefits for every $1.00 invested in the Program[11]. After weatherization, families' homes are more livable, resulting in fewer missed days of work (i.e. sick days, doctor visits) and a decrease in out-of-pocket medical expenses by an average of **$514** (Figure 3). **The total health and household-related benefits for each unit is $14,148**[12].

Figure 3: Weatherization Non-Energy Benefits

HOMES ARE MORE LIVABLE

SAVES AN AVERAGE OF **$514** IN OUT-OF-POCKET MEDICAL EXPENSES

SAVES **$583** IN PAY PER YEAR DUE TO FEWER MISSED DAYS OF WORK

[10] *U.S. Department of Energy, National Evaluations: Summary of Results Fact Sheet, August 2015.*
[11] *Ibid.*
[12] *Ibid.*

Program History

The Weatherization Assistance Program was created in 1976 under **Title IV of the Energy Conservation and Production Act** to assist low-income families at a time when most Americans were dramatically affected by the 1973 oil crisis. Escalating home heating bills were a heavy burden on household budgets, sinking many families into debt. Low-income families in cold-climate states suffered the most severe consequences.
In Maine, state officials and community action agencies worked with homeowners and renters to seal air leaks in homes. These measures cut energy bills and saved oil. Out of this effort, the nation's first Weatherization Program was developed.

Today's home performance industry, made up of for profit companies, is based on the techniques and technologies developed by the Weatherization Assistance Program.

In this early phase, volunteers and job trainees installed low-cost conservation measures, such as covering windows with plastic sheeting, caulking and weatherstripping, to reduce home heating bills. By the 1980s, the Program focused on more permanent and cost-effective measures, such as adding insulation (with its long track record of effectiveness) and improving efficiency in heating systems. Today's home performance industry, made up of for profit companies, is based on the techniques and technologies developed by the Weatherization Assistance Program.

In the 1990s, the trend toward emphasizing more cost-effective measures continued with the widespread adoption of advanced energy audits and diagnostic equipment. The use of computerized energy audits improved the cost effectiveness of the Program. Blower door-directed air sealing has enabled agencies to diagnose and solve infiltration problems more accurately. The integration of advanced diagnostic equipment has also improved the identification of energy-related health and safety problems, such as carbon monoxide leaks caused by faulty furnaces and inoperable vent flues.

Cooling efficiency measures were integrated in the Program in 1994, including air conditioner replacement, ventilation equipment, and screening and shading devices. These measures have made a big impact in warm climates, where cooling costs are often higher than heating costs.

By 1996, the Program's performance improved significantly due to implementation of many of the recommendations resulting from a National Evaluation conducted by Oak Ridge National Laboratory and other DOE-supported research projects. Despite funding reductions during this period, technical advances produced almost 70% higher energy savings per dwelling. This was achieved through improved training, auditing tools, and management practices.

Additional regulatory and legislative changes in the late 1990s increased flexibility for states. The average amount of spending per home was raised and the requirement that 40% of Program funds be spent on materials was removed in response to the nationwide integration of advanced energy audits. Electric baseload measures were approved and incorporated in 2000.

Also in 2000, DOE increased flexibility for providers to ease budget constraints related to health and safety expenditures. To help Grantees weatherize more multifamily dwelling units, the eligibility criteria was changed to allow the weatherization of units where low-income tenants account for half of the building's residents in certain situations.

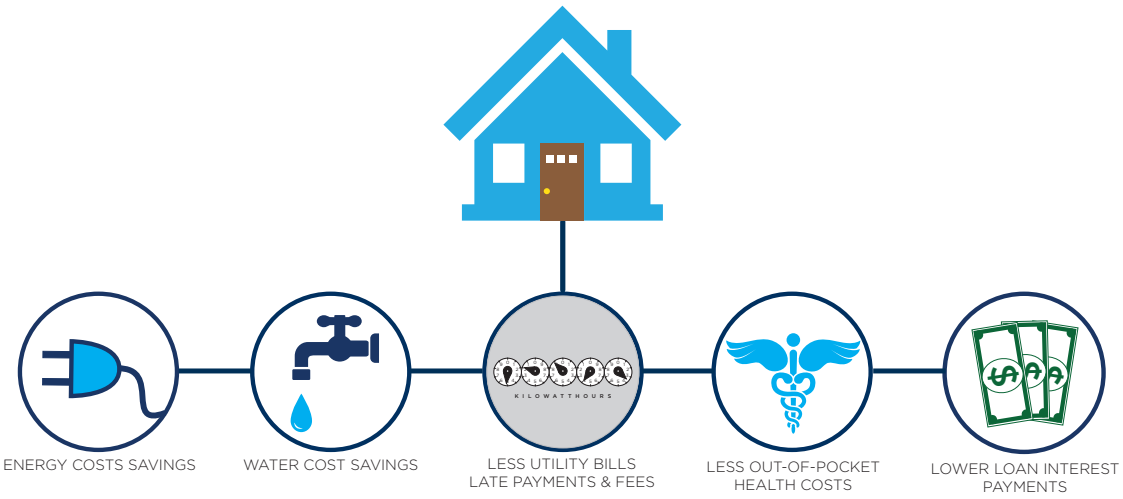
In a 2006 rulemaking, DOE allowed the eligibility of certain renewable energy systems for funding and installation under the Energy Policy Act of 2005 and established criteria for their performance and quality standards.

The Energy Independence and Security Act of 2007, which reauthorized the Program, was expanded by DOE during the rulemaking to include any territory or possession of the U.S. in the definition of "states" as an eligible grantee of the Program.

As part of the Recovery Act that was signed into law on February 17, 2009, the Program was provided $5 billion in additional funding to support jobs, spur economic growth, and expedite the weatherization of more low-income homes.

Today, DOE's Weatherization Assistance Program has evolved into a sophisticated residential program that addresses whole-house energy efficiency and promotes a whole-community approach.

Figure 4: Weatherization Benefits



Funding and Production History

Many WAP Grantees use the DOE Weatherization funding as the foundation to attract other funding sources. The core funding received from DOE often provides the training, technical assistance, and administrative needs for a state, territory or local organization. Leveraging additional dollars allows the local programs to increase the variety of services offered and the number of homes served.

The following chart reflects historic DOE appropriations and units weatherized since the Program's inception. Leveraged funds can be credited with increasing the total number of families served through Weatherization to over **7 million**.

Overview of the Weatherization Assistance Program
DOE Funding and Production (1977 - 2018)

Year	DOE Appropriation (in Millions)	Units Weatherized w/ DOE $	Cumulative DOE Units	Year	DOE Appropriation (in Millions)	Units Weatherized w/ DOE $	Units Weatherized w/ARRA $	Cumulative DOE Units
1977	$27.5	1,622	1,622	**1998**	$124.8	68,470		2,534,753
1978	$65.0	6,742	8,364	**1999**	$133.0	71,984		2,606,737
1979	$199.0	15,387	23,751	**2000**	$135.0	74,316		2,684,446
1980	$199.0	232,751	256,502	**2001**	$153.0	77,709		2,762,155
1981	$175.0	352,906	609,408	**2002**	$230.0	104,860		2,867,015
1982	$144.0	122,992	732,400	**2003**	$223.5	105,953		2,972,968
1983	$245.0	156,629	889,029	**2004**	$227.2	106,099		3,079,067
1984	$190.0	209,261	1,098,290	**2005**	$228.2	100,532		3,179,599
1985	$191.0	163,860	1,262,150	**2006**	$242.6	98,626		3,278,225
1986	$182.1	149,047	1,411,197	**2007**	$204.6	104,532		3,382,757
1987	$161.3	105,440	1,516,637	**2008**	$227.2	95,460		3,478,217
1988	$161.3	105,465	1,622,102	**2009**	$450.0	101,153	7,343	3,586,713
1989	$161.3	85,115	1,707,217	**2010**	$210.0	49,982	238,317	3,933,170
1990	$162.0	84,441	1,791,658	**2011**	$174.3	36,878	309,579	4,279,627
1991	$198.9	105,769	1,897,427	**2012**	$68.0	50,419	226,121	4,556,167
1992	$194.0	99,587	1,997,014	**2013**	$137.9	49,834	23,103	4,629,104
1993	$185.4	103,394	2,100,408	**2014**	$179.2	38,099	1,699	4,668,902
1994	$206.8	114,904	2,215,312	**2015**	$191.8	34,389	527	4,703,818
1995	$214.8	102,981	2,318,293	**2016**	$213.8	31,633		4,735,451
1996	$111.7	76,393	2,394,686	**2017**	$226.2	38,626		4,774,077
1997	$120.8	71,597	2,466,283	**2018**	$250.4	33,823		4,807,900

Organizational Chart

DOE awards grants to states, the District of Columbia and the five U.S. territories which then contract with local organizations to deliver weatherization services to eligible residents.

FEDERAL

U.S. Department of Energy

Office of Energy Efficiency & Renewable Energy

Office of Weatherization & Intergovernmental Programs

Weatherization Assistance Program

STATE

WAP Grantees

50 States

District of Columbia

5 U.S. Territories

Native American Tribal Organizations

LOCAL

WAP Subgrantees

~ 700 Local Agencies

Community Action Programs & local Governments

Agency-based crews and/or private subcontractors

CLIENT

WAP Clients - Homeowners/ Renters in:

Single Family Housing

Manufactured Housing

Multifamily Housing

Program Management

U.S. Department of Energy - Headquarters
Office of Energy Efficiency and Renewable Energy
Office of Weatherization and Intergovernmental Program
Weatherization Assistance Program
1000 Independence Avenue, SW, Mail Stop EE-5W
Washington, DC 20585-0121
(202) 586-1510

U.S. Department of Energy - Golden Field Office
U.S. Department of Energy
15013 Denver West Parkway
Golden, Colorado 80401
(720) 356-1800

Program Support

Community Action Partnership (CAP)
1020 19th Street NW, Suite 700 Washington, DC 20036 | (202) 265-7546

Economic Opportunity Studies (EOS)
400 North Capitol Street, Suite G-80, Washington, DC 20001 | (202) 628-4900

Lawrence Berkeley National Laboratory (LBNL)
1 Cyclotron Road, Berkeley, CA 94720 | (510) 486-4000

National Association of State Community Services Programs (NASCSP)
111 K Street, NE, Suite 300, Washington, DC 20002 | (202) 624-5866

National Community Action Foundation (NCAF)
PO Box 78214, Washington, DC 20013 | (202) 842-2092

National Renewable Energy Laboratory (NREL)
15013 Denver West Parkway, Golden, CO 80401 | (303) 275-3000

Oak Ridge National Laboratory (ORNL)
PO Box 2008, MS6070, Oak Ridge, TN 37831-6070 | (865) 574-0749

LEGISLATIVE & REGULATORY TIMELINE

Legislation

1. Energy Conservation in Existing Buildings Act of 1976 (Title IV of the Energy Conservation and Production Act), Public Law 94-385, August 14, 1976.

2. National Energy Conservation Policy Act (NECPA), Title II, Part 2, Public Law 95-619, November 9, 1978.

3. Energy Security Act (ESA), Title V, Subtitle E, Public Law 96-299, June 30, 1980.

4. Job Training Partnership Act, Public Law 97-300, October 13, 1982.

5. Human Services Reauthorization Act of 1984, Public Law 98-558, October 30, 1984.

6. State Energy Efficiency Programs Improvement Act (SEEPIA), Public Law 101-440, 1990.

7. Energy Act of 2000, Public Law 106-469, October 19, 2000.

8. Energy Act of 2005, Public Law 109-58, August 8, 2005.

9. Energy Independence and Security Act of 2007, Public Law 110-140, December 19, 2007.

10. American Recovery and Reinvestment Act of 2009 (ARRA), Public Law 111-5, February 17, 2009.

Regulations

1. 10 CFR Part 440, Establishment of Regulations, Final Rule, published June 1, 1977, effective May 25, 1977.

2. 10 CFR Part 440, Final Rule, published and effective January 2, 1979, amended regulations based on the experience gained during the first year of the WAP.

3. 10 CFR Part 440, Final Rule, published May 31, 1979, effective July 2, 1979, amended the regulations as mandated by NECPA.

4. 10 CFR Part 440, Final Rule, published August 29, 1979, effective November 27, 1979, amended regulations as mandated by section 231(b)(1) of NECPA.

5. 10 CFR Part 440, Interim Rule, published and effective February 27, 1980.

6. 10 CFR, Amendment to Interim Rule, published June 1, 1981, effective July 1, 1981, made changes to the Interim Rule mandated by ESA.

7. 10 CFR Part 440, Amendment to Interim Rule, published and effective March 3, 1982, made changes mandated by section 573 of ESA.

8. 10 CFR Part 440, Final Rule, published January 27, 1984, effective February 27, 1984.

9. 10 CFR Part 440, Interim Final Rule, published January 4, 1985, effective February 4, 1985.

Regulations, continued

10. 10 CFR Part 440, Interim Final Rule, published December 5, 1985, effective January 6, 1986, implemented changes mandated by the Human Services Reauthorization Act of 1984

11. 10 CFR Part 440, Final Rule, published March 4, 1993, effective April 4, 1993, implemented changes mandated by SEEPIA.

12. 10 CFR Part 440, Interim Final Rule, published June 5, 1995, effective July 5, 1995, implemented changes to the allocation formula.

13. 10 CFR Part 440, Interim Final Rule, published December 8, 2000, effective January 8, 2001, implemented changes to improve operation of the program that evolved since the last rulemaking in 1995.

14. 10 CFR Part 440, Direct Final Rule, published June 22, 2006, effective August 21, 2006, implemented changes mandated by the Energy Policy Act of 2005.

15. 40 CFR Part 745, Final Rule, published April 22, 2008, effective June 23, 2008, EPA Lead; Renovation, Repair, and Painting Program.

16. 10 CFR Part 440, Final Rule, published and effective on March 25, 2009, amended program to include the US Territories and Puerto Rico.

17. 10 CFR Part 400, Final Rule, published January 25, 2010, effective February 24, 2010, amended the eligibility provisions applicable to multi-unit buildings.

18. 10 CFR Part 440, Interim Final Rule published March 11, 2010, Final Rule published June 7, 2010, effective on July 7, 2010, Weatherization Assistance for Low-Income Persons: Maintaining the Privacy of Applicants for and Recipients of Services.

19. 10 CFR Part 200 and Part 910, Final Rule published September 24, 2015, effective on October 26, 2015, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

Timeline

	LEGISLATION	REGULATIONS
1974	Pilot	Pilot
1976	1	
1977		1
1978	2	
1979		2,3,4
1980	3	5
1981		6
1982	4	7
1984	5	8
1985		9
1986		10
1990	6	
1993		11
1995		12
2000	7	
2001		13
2005	8	
2006		14
2007	9	
2008		15
2009	10	16
2010		17, 18
2015		19

HISTORY OF PROGRAM LEGISLATION

1976

Energy Conservation in Existing Buildings Act of 1976, Title IV of the Energy Conservation and Production Act, Public Law 94-385, August 14, 1976

- Served as the enabling legislation for the Weatherization Assistance Program.
- Gave priority service to elderly and handicapped low-income persons.
- Established initial set of allowable Weatherization materials.
  - Materials may be added by rule.
- Directed the Secretary of Energy to make grants to states and Indian Tribal Organizations for weatherizing dwelling units occupied by low-income families, particularly those where elderly or handicapped low-income persons reside.
- Directed the Secretary to publish proposed regulations for the Program that:
  - Prescribed standards for Weatherization materials; and,
  - Insured that:
    - » The benefits of Weatherization in connection with leased dwelling units accrued primarily to low-income tenants.
    - » Rents on such dwelling units would not be raised because of any increase in the value due to Weatherization.
    - » No undue or excessive enhancement would occur to the value of such dwelling units.
- Gave authority to the Secretary to determine if the low-income members of Indian tribes were not receiving benefits equivalent to other low-income persons in a state and that the members of the tribe would be better served by a direct grant.
- Directed the Secretary to provide financial assistance to each state on the basis of the relative need for Weatherization assistance among the low-income persons throughout the states, taking into account the following factors:
  - The number of dwelling units to be weatherized.
  - Climatic conditions.
  - The type of Weatherization work to be done.
  - Other factors that the Secretary may determine necessary.
- If the State did not submit an application, any unit of general purpose local government of sufficient size or a community action agency are allowed to submit an application.
- Directed the Secretary to provide no financial assistance unless the applicant had provided reasonable assurances that it had:
  - Established a policy advisory council.
  - Established priorities to govern the provision of Weatherization assistance.
  - Established policies and procedures to assure that financial assistance will be used to supplement, not supplant, state or local funds, and increase the amount of leveraged non-Federal funds, including:
    - » Securing, to the maximum extent practicable, volunteers pursuant to the Comprehensive Employment and Training Act (CETA) of 1973.
    - » Complying with the limitations set for administrative, materials, and labor expenditures.
    - » Selection on the basis of public comment received during a public hearing.

1978

National Energy Conservation Policy Act (NECPA), Title II, Part 2, Public Law 95-619, November 9, 1978

- Increased eligibility level from the poverty level to 125% of poverty.
- Allowed a higher eligibility level if determined necessary by the Administrator, Secretary of Agriculture, and the Director of the Community Services Administration.
- Relaxed eligibility requirement from "in which the head of the household is a low-income person" to "occupied by low-income families."
- Added the requirement to establish program regulations within 60 days of law enactment.
- Added requirement to establish procedures to determine the optimum set of cost-effective measures taking into consideration the cost of the Weatherization materials, variation in climate and the value of the energy savings.
- Defined and listed specific Weatherization materials.
- Limited administrative expenditures to 5% for states.
- Limited expenditures to $800 for materials, tools, equipment, transportation, on-site supervisory personnel, and incidental repairs, but allowed for higher amount if state policy advisory council requested and the Secretary approved it.
- Funding section revised to specify authorization of appropriations for 1979-1981, and required these funds to remain available until expended.

1980

Energy Security Act (ESA), Title V, Subtitle E, Public Law 96-294, June 30, 1980

- Increased limit on administrative expenditures to 10%, except that not more than half may be used by the state.
- Increased $800 limit for Weatherization materials to up to $1,600 if CETA labor was unavailable.
- Required the applicant to select subgrantees on the basis of public comment received during a public hearing.

  Applicants were required to provide assurances that preference was given to community action agencies or other public or non-profit entities provided such selection was based on the agency's experience and performance in Weatherization or housing renovation activities, experience assisting low-income persons in the area to be served, and the capacity to undertake a timely and effective Weatherization Program. Further, preference was required to be given to any community action agency or other public or non-profit entity which had or was then currently administering an effective Weatherization program or program under the Economic Opportunity Act of 1964.
- Required that the efforts of the DOE Weatherization Program and Weatherization program carried out at the Department of Agriculture and the Community Services Administration to accomplish uniform results among the state in any area with similar climatic conditions.
- Increased the $100 limit for incidental repairs to $150.

HISTORY OF PROGRAM LEGISLATION

1982

Job Training Partnership Act, Public Law 97-300, October 13, 1982

- Made funds available for job training programs or services including regional or nationwide efforts to develop a labor force with skills that promote the use of renewable energy technologies, energy conservation, and the Weatherization of homes occupied by low-income families.
- Directed the Secretary to provide directly or through grants, contracts, or other arrangements, appropriate pre-service and in-service training for specialized, supportive, supervisory, or other personnel including job skills and appropriate technical assistance.

1984

Human Services Reauthorization Act of 1984, Public Law 98-558, October 30, 1984

- Eligibility criteria added:
  - If a state elects, assistance under the Low-Income Home Energy Assistance Act of 1981 provided that such basis is at least 125% of the poverty level as determined by OMB.
- Weatherization materials added:
  - Furnace efficiency modifications including:
    - » Replacement burners, furnaces, or boilers.
    - » Devices for minimizing energy loss through heating system, chimney, or venting devices.
    - » Electrical or mechanical furnace ignition systems that replace standing gas pilot lights.
  - Removed requirement that adding allowable weatherization materials required a rulemaking.
- Required that at least 40% of the funds provided for materials, labor, and related matter must be spent for materials.
- Expenditure limit increased to *an average of* $1,600.
- Added reweatherization restrictions.
- Established a performance fund.

1990

State Energy Efficiency Programs Improvement Act (SEEPIA), Public Law 101-440, October 18, 1990

- Began adjusting the $1,600 statewide average annually by the lesser of the Consumer Price Index (CPI) or 3%.
- Established a separate expenditure average for capital-intensive heating or cooling modifications.
- Allowed a waiver of 40% material cost requirement if a state adopted advanced energy audit procedures that:
  - Meet standards established by the Secretary after consultation with the State Energy Advisory Board (STEAB);
  - Establish priorities based on their cost and contribution to energy efficiency;
  - Measure the energy requirement of individual dwelling units and the rate of return of the total conservation investment;
  - Account for interaction among energy-efficiency measures.
- Allowed the use of priority lists in conjunction with the 40% waiver, provided certain requirements were met.
- Allowed subgrantees whose grants were less than $350,000 to use up to an additional 5% for administration.
- Added Weatherization materials:
  - Replacement air conditioners.
  - Ceiling, attic, and whole house fans.
  - Evaporative coolers.
  - Screening.
  - Window films and shading devices.
- Expanded protection for renters:
  - Allowing benefits and no rent increase even for renters paying for energy through rent.
  - Establishing complaint procedures.
  - Instituting states may place liens.
  - Allowing states to require financial participation from landlords.
- Relaxed requirement for Job Training Partnership Act (JTPA) labor to when it was “generally” available.
- Extended cut-off date for reweatherization to September 30, 1985.
- Allowed reweatherized units to count as completions provided they did not exceed 5% of total homes weatherized per year.
- Allowed the cost of financial audits to be chargeable as a separate line item cost instead of as an administrative expense.
- Added a reporting requirement to include information and data furnished by each state the average costs incurred in Weatherization of individual dwelling units, the average size of the dwelling units being weatherized, and the average income of the households receiving assistance.
- Directed the Secretary to annually update the population, eligible households, climatic, and residential energy use, and all other data used in allocating funds.
- Repealed the Performance Fund.
  - Established a new Incentive Fund.
  - Allowed priority to be given to children.
  - Allowed the Weatherization of shelters.
  - Allowed leveraging of non-Federal monies with grant funds.

HISTORY OF PROGRAM LEGISLATION

2000

Energy Policy Act of 2000, Public Law 106-469, October 19, 2000

- Increased statewide average expenditure limit per dwelling to $2,500 to be adjusted annually.
- Included capital-intensive heating and cooling measures in the increased expenditure limit, thereby eliminating the separate capital-intensive expenditure limit.
- Deleted waiver of 40% material cost requirement because all States had adopted advanced energy audits.

2005

Energy Policy Act of 2005, Public Law 109-58, August 8, 2005

- Explicitly allowed renewable energy systems to be funded under the Program.
- Established criteria and a procedure for evaluating renewable energy systems.
- Increased the permissible funding level to $3,000 for such systems, indexed to the lesser of the Consumer Price Index (CPI) or 3%.

2007

Energy Independence and Security Act of 2007, Public Law 110-140, December 19, 2007

- Reauthorized the Weatherization Program.
- Increased authorized appropriations for FY 2008-2012. The following amounts were appropriated—
  "(1) $750,000,000 for fiscal year 2008;
  "(2) $900,000,000 for fiscal year 2009;
  "(3) $1,050,000,000 for fiscal year 2010;
  "(4) $1,200,000,000 for fiscal year 2011; and
  "(5) $1,400,000,000 for fiscal year 2012.".
- Established Sustainable Energy Resources for Consumers (SERC) Grants:
  - Made funds available to local Weatherization agencies to expand Program for residential buildings not currently eligible.
  - No funds may be used for these grants if the appropriations for Weatherization Program is less than $275,000,000.
- Definition of 'state' expanded to include 'any other territory or possession of the United States.'

2009

American Recovery and Reinvestment Act of 2009, Public Law 111-5, February 17, 2009

- The main purpose of this Act was to stimulate the economy and create and retain jobs.
- The Act gave preference to activities that started and were completed expeditiously, including a goal of using at least 50 percent of the funds made available by it for activities that were initiated no later than June 17, 2009.
- The Act provided the Weatherization Assistance Program $5 billion in funding for use between April 2009 through March 2012.
- In addition to the increase in funding, the Act:
  - Increased the referenced percentage of the poverty level in the definition of "low-income" from 150 percent to 200 percent.
  - Increased the limit on the minimum average expenditure per dwelling from $2,500 to $6,500.
  - Increased the amount of appropriated funds the Department of Energy could apply towards Training and Technical Assistance (T&TA) from 10 percent of the appropriated sums up to 20 percent.
  - Assistance for Previously Weatherized Units: Amended from September 30, 1993, to September 30, 1994.

LEGISLATIVE & REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 8/4/88	Added Wood Stoves as an approved weatherization material outside Appendix A. Was subsequently added to Appendix A in 3/4/1993 rule change.	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 94-5	Adds Florescent Lighting to Approved Materials List outside Appendix A	Added in 1/4/85 Rule change (currently 10 CFR 440.21(b) with details in preamble: approval without rulemaking process of materials/ technologies not listed in Appendix A.	The Human Services Reauthorization Act of 1984, PL 98-558, October 30, 1984, deleted "by rule" as a requirement for DOE to approve weatherization materials or technologies.
WPN 00-5	Adds Replacement Refrigerators and Electric Water Heaters to Approved Materials List outside Appendix A	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 01-11	Adds several more items to the Approved Materials List outside Appendix A	Same as for WPN 94-5.	Same as for WPN 94-5.
WPN 10-8	Program Notice on maintaining the privacy of recipient services	**10 CFR 600.153(f), Retention and access requirements for records**, states DOE only restricts public access to records if such records would have been exempted from disclosure pursuant to the **Freedom of Information Act** if the records belonged to DOE. WPN issued as part of continual TA by DOE.	**Title IV, the Energy Conservation and Production Act of 1976, PL 94-385**, authorized Federal Energy Administration (FEA) to propagate regulations for WAP. **The DOE Organization Act, PL 95-91**, gave responsibility of FEA for the WAP to DOE.
WPN 10-10	Reprogramming Training & Technical Assistance (T&TA) Funds to Program Operations	**10 CFR 440.23(e)** sets 20% limit on T&TA. **10 CFR 440.23(a)** requires DOE to ensure the effectiveness of WAP. **10 CFR 440.12(b)(7)** requires Grantees to submit a T&TA plan to indicate how funds will be used.	**Title IV, the Energy Conservation and Production Act of 1976, PL 94-385**, authorized up to 10% of annual WAP appropriation for T&TA, at the discretion of DOE. **The Recovery Act** increased this to up to 20%.
WPN 10-12	Historic Preservation Implementation	**10 CFR 440.2**, Administration of Grants	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, gave responsibility to DOE to administer WAP. **Section 106 of the National Historic Preservation Act of 1966**, as revised. Implemented by 8/5/2004 change to 36 CFR 800. DOE is required to take into account the effect of weatherization on historic properties.
WPN 10-16	Clarification on Selection of Types of Insulation Materials Allowable for Use in the Weatherization Assistance Program	Same as for WPN 02-6.	Same as for WPN 02-6.
WPN 11-3	Use of WAP Funds for Add-On/Call-Back Work	The 1/27/1984 rule change added a provision, **10 CFR 440.16(g)**, that a unit can be considered complete and reported to DOE after a final inspection. **10 CFR 440.18(f)(2)** prohibits providing weatherization for units that have previously received WAP funds, with specific stated exceptions.	**The Human Services Reauthorization Act of 1984, PL 98-558, Title 42 §6865(c)(2)**, began allowing further WAP assistance only for partially weatherized units bounded by Statute specified dates (currently 9-30-1994 or before).

LEGISLATIVE & REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 11-14	Updated Subgrantee Selection Program Notice	Direction for implementing **10 CFR 440.14** & **10 CFR 440.15**. Supercedes WPN 96-4. Issued in anticipation of Subgrantee changes due to end of ARRA funding.	Title IV, the Energy Conservation and Production Act of 1976, as amended, requirements in §6861(a)(4) and §6864(b)(4).
WPN 12-7	Disaster Planning and Relief	Outlines requirements in 10 CFR 440.16 and 440.18. Suggests how such requirements may be interpreted to provide for limited WAP participation during disaster relief.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (**42 U.S.C. 6861-6873**).
WPN 15-4	Quality Work Plan Requirement	Details for program oversight required by **10 CFR 440.23**. Specifically provides minimum expectations for standards and quality of material installation and quality control.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP **(42 U.S.C. 6861-6873), specifically §6851(a)(4) and §6866**.
WPN 16-4	Weatherization Assistance Program Monitoring Procedures	Provides details for program oversight required by **10 CFR 440.23**.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer Weatherization (42 U.S.C. 6861-6873, §6851(a)(4) and §6866).
WPN 16-5	Multifamily Weatherization	Gives detailed information for conformance with requirements in **10 CFR 440**, including but not limited to, **10 CFR 440.16(i); 440.22**. Significant discussion of requirements can be found in the preambles to the following rule changes: 6/1/1977; 2/27/1980; 1/27/1984; 3/4/1993; 12/8/2000; 1/25/2010.	**Title IV, the Energy Conservation and Production Act of 1976,** as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6863(b)(2) and (b)(5). Includes subsequent revisions by **SEEPA in 1990**.
WPN 16-6	Weatherization of Rental Units	Gives detailed information for conformance with requirements in **10 CFR 440**, including but not limited to, **10 CFR 440.16(i); 440.22**. Significant discussion of requirements can be found in the preambles to the following rule changes: 6/1/1977; 2/27/1980; 1/27/1984; 3/4/1993; 12/8/2000; 1/25/2010.	**Title IV, the Energy Conservation and Production Act of 1976,** as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6863(b)(2) and (b)(5). Includes subsequent revisions by **SEEPA in 1990**.
WPN 16-7	Approved Weatherization Materials with Specifications	Provides details with reference to **10 CFR 440.21(b)**, which allows use of a weatherization material not listed in Appendix A as approved by DOE upon application from any state. Discussion of this provision is published in the preamble of the **10 CFR 440 Interim Final Rule of 1/4/1985**.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer WAP (42 U.S.C. 6861-6873). Specifically, §6862(9)(J), with subsequent revision by HSRA in 1984, which struck out the requirement "by rule" for approving additional weatherization materials.
WPN 17-4	Multifamily Housing – Procedure for Certifying Income-Eligible HUD Assisted Buildings	Provides details with reference to **10 CFR 440.22(b)**, which allows a subgrantee may weatherize a building containing rental dwelling units using financial assistance for dwelling units eligible for weatherization assistance.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer WAP (42 U.S.C. 6861-6873).
WPN 17-6	Property Acquired Under the Weatherization Assistance Program (WAP) Including Vehicle and Equipment Purchases	Guidance to outline detail and provide clarification for compliance with requirements in **2 CFR 200.33; 2 CFR 200.310-316; 10 CFR 440.18** concerning procedures for property acquisitions.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873).
WPN 17-7	Health & Safety Guidance	Rule change 3/4/93, including preamble discussion, added requirements for Health & Safety plans in what is currently **440.16(h), 440.18(c)(15), and 440.21(e)(5).**	**The State Energy Efficiency Programs Improvement Act (SEEPIA), PL 101-440, 1990**, added improvement of Health & Safety of dwellings to the purpose of WAP.

LEGISLATIVE & REGULATORY REFERENCES

NOTICE	PURPOSE	REGULATORY AUTHORITY	STATUTORY AUTHORITY
WPN 19-1	WAP Grant Program Notice	Program Notice for annual Grantee application for funding, includes two attachments: 1) Administrative and Legal Requirements Document (ALRD) and 2) Application Instructions. These documents provide comprehensive information for conformance with DOE WAP grant regulations. Specific reference can be tied to **10 CFR 440.12** and **440.14**.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873).
WPN 19-2	Program Year 2019 Grantee Allocations	Explicitely lists funding allocation amounts available to each potential Grantee. Based on the latest revision of **10 CFR 440.10** & **440.11.**	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6863(d) and §6864.
WPN 19-3	Poverty Income Guidelines and Definition of Income	Annual program notice includes details of income eligibility determination, including revised Poverty Income Guidelines in support of the latest revsion of **10 CFR 440.3** (definition of "low income") and **10 CFR 440.22** (eligible dwelling units).	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically, §6862(7), with subsequent revisions by NECPA in 1978; HSRA in 1984; Energy Act of 2005; ARRA of 2009.
WPN 19-4	Revised Energy Audit Approval Procedures and Other Related Audit Issues	Provides details with primary reference to **10 CFR 440.21**. Preambles to following rule changes provide many details of intent: 3/4/1993; 12/8/2000; 11/21/2001.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (42 U.S.C. 6861-6873). Specifically §6863(b) & §6865. As amended: by **SEEPIA in 1990; Energy Act of 2000.**
WPN 19-5	Weatherization Assistance Program Incidental Repair Measures Notice, including windows, doors and roofs	Provides on allowable incidental repair measures (IRM). IRM allowances evolved over time, with discussions (very useful for perspective) in preambles to rule changes: 1/2/1979; 5/31/1979; 2/27/1980; 6/1/1981; 1/27/1984; 1/4/1985; 3/4/1993. Current rules address IRM in **10 CFR 440.3 & 440.21(d)**.	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, authorizes DOE to administer the WAP (**42 U.S.C. 6861-6873**). **§6865(c)(1)(d)** was added by NECPA in 1978 to allow limited repairs, with subsequent revisions by **ESA in 1980; HSRA in 1984; SEEPIA of 1990**.
WPN 19-6	DOE Program Notice for Completing Recipients' Annual Historic Preservation Report	**10 CFR 440.2**, Administration of Grants	**Title IV, the Energy Conservation and Production Act of 1976**, as amended, gave responsibility to DOE to administer WAP. **Section 106 of the National Historic Preservation Act of 1966**, as revised. Implemented by 8/5/2004 change to 36 CFR 800. DOE is required to take into account the effect of weatherization on historic properties.

WEATHERIZATION TIMELINE

1970s

1978

*DOE published **Project Retro-Tech, a paper-based audit** for identifying weatherization measures that would produce the most energy savings per dollar spent. **Typical measures included air sealing (with caulk) and insulation ("Blow & Go" installed by volunteer labor)**. Weatherization begins mainly as an envelope improvement program with no building diagnostics or cost-effectiveness requirements.*

1979

***Water heater insulation, more substantial air sealing efforts (patching), attic ventilation** and others are added to list of approved weatherization materials.*

1980s

***Allowed low-cost/no-cost general heat waste measures like water flow reducers, limited to 10% of total grant and $50/home**. Grantees are allowed to hire labor if volunteers are unavailable.*

1980

1986

***Average cost per unit increases to $1,600** and $150 limit on incidental repairs is lifted. Replacement heating systems are allowed and early adopters are using blower doors to diagnose home air leakage.*

*Added building envelope materials, including **moveable window insulation and constructing vestibules, pipe and boiler insulation materials, heating/cooling equipment and water heater tune ups**. Client education is allowed under the Training and Technical Assistance portion of Weatherization grants.*

1984

*A NY State WAP retreat results in a set of principles that will **form the basis of the home performance industry**. From this, Building Performance Institute (BPI) is established as a NY State program.*

1993

***Savings-to-Investment Ratio (SIR)** was introduced. **Advanced home diagnostics** takes root as practitioners measure and use energy requirements and take account of measure interactions to receive an audit waiver. Cooling equipment and ventilation equipment are added to the Program.*

*Weatherization training centers Association for Energy Affordability (AEA) in New York and the Indiana Community Action Association (INCAA) become **the first BPI affiliates.** They developed and delivered training leading to BPI certification, improving consistency of training and qualifications of WAP staff.*

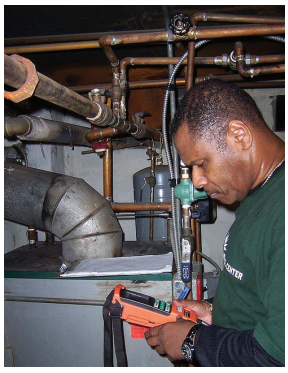
1998

1990s

1996

*Original BPI pilot testing of Weatherization staff across multiple states. **First Weatherization auditors and installers receive BPI certifications.***

1999



*Process begins to **expand existing BPI standards from weatherization to the emerging home performance industry**. Combustion diagnostic protocols are developed for gas appliances.*

***Advanced audits or priority lists are widely used and SIR is guiding Weatherization spending**. General heat waste reduction measures, electric baseload measures including hot water heaters and refrigerators are added to the Program.*

2001

***The Recovery Act invests $5 billion in Weatherization.** Weatherization training providers ramp up to meet additional staffing requirements nationwide. Workforce standardization launches with the development of the 4 key weatherization/ home performance Job Task Analyses & training center accreditation programs.*

2009

2000s

2006

***Renewable energy systems** are added into Weatherization. Acceptable systems include **solar, biomass and geothermal**.*

2010

***Standard Work Specifications for Upgrades to Residential Buildings are published**, the result of DOE Weatherization bringing together dozens of industry subject matter experts and stakeholders.*